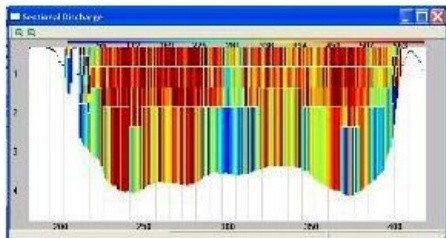


Discharge Measurement



LinkQuest's FlowQuest acoustic current profilers have been extended with a Discharge Measurement function which can be used to measure the discharge in rivers, estuaries, natural streams and constructed channels. This function comes in the form of an option for the FlowQuest 600 and 1000 acoustic current profilers.

For the discharge measurement application, the standard FlowQuest 600 or 1000 acoustic current profiler is steadily deployed on a moving vessel such as a catamaran, a small floating platform or a small boat with the transducer pointing downward. The profiler measures the water velocities, the ship's velocities, the depth and other related

information required for discharge measurement by doing current ensemble and bottom tracking pings alternatively. Advanced algorithms calculate the sectional discharge and the total discharge in real time. The sectional discharge, total discharge, the ship's trace, the bottom depth and related velocities are displayed in the FlowQuest software. The FlowQuest Discharge Measurement software can also be used for user friendly off-line analysis. The user can select different measurement starting and ending points and different models to revise and optimize the discharge calculation results. With very fast ping rate, automatically adjusted cell size and no ambiguity error, the Discharge Measurement function in the FlowQuest profilers is capable of more accurately measuring both normal and unsteady (or tidally affected) flow.